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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/736,232	12/14/2000	Scott A. Sirrine	65856-0025	9140

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EXAMINER

DAY, HERNG DER

ART UNIT	PAPER NUMBER
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2128

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/736,232

Applicant(s)

SIRRINE, SCOTT A.

Examiner

Herng-der Day

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2000.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-16 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 13 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-16 have been examined and claims 1-16 have been rejected.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

- (a) The "Select Dialog" screen 51, as described in paragraph [0031] at page 6.
- (b) the selected driveline configuration 23, as described in paragraph [0040] at page 9.

Specification

3. The disclosure is objected to because of the following informalities:

Appropriate correction is required.

- 3-1. It appears that "The "Corrective Mode"", as described in line 4 of paragraph [0056] at page 15 is redundant.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. In accordance with MPEP section 2164.08(a), claim 1 is subject to an undue

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breadth rejection under 35 U.S.C. 112, first paragraph, as reciting only a single means (step).

MPEP § 2164.08(a) recites the following:

2164.08(a) Single Means Claim

A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph. In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.). When claims depend on a recited property, a fact situation comparable to Hyatt is possible, where the claim covers every conceivable structure (means) for achieving the stated property (result) while the specification discloses at most only those known to the inventor.

In this application, claim 1 recites “A method of ... by entering measurements for the vehicle driveline configuration into a graphical user interface program”. This single step is nonenabling for the scope of the claim since it is not in combination with any additional means (steps) and, hence, can be interpreted as encompassing every conceivable means for achieving the claimed limitation.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for failing to recite a series of steps that logically amount to the method set forth in preamble of claim 1.

7-1. Claim 1 sets forth a method of “determining one of a torsional acceleration and an inertia of a vehicle driveline configuration”. However, the body of the claim merely recites the step of “entering measurements for the vehicle driveline configuration into a graphical user interface program” without actually providing a series of steps that logically amount to the method of “determining one of a torsional acceleration and an inertia of a vehicle driveline configuration”.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eaton Corporation (Eaton), "Eaton Truck Components Bulletin, TRIB-9701", 1997, in view of Kumra et al., U.S. Patent 6,077,302 issued June 20, 2000.

9-1. Regarding claim 1, Eaton discloses a method of determining one of a torsional acceleration (The acceleration values will be calculated automatically, step 8 of "How To Use D.A.A. Software", fifth page) and an inertia of a vehicle driveline configuration by entering measurements (Enter angles and Enter phasing angle of yokes, steps 4 and 6 of "How To Use D.A.A. Software", fifth page) for the vehicle driveline configuration into a program (Eaton Driveline Angle Analyzer (DAA) program, first page, paragraph 2).

Eaton fails to disclose expressly the DAA program is a graphical user interface program. However, Eaton does disclose a minimum of a 286 based computer is required and various steps to interactively interface and operate the program, for example, start program by typing DAA, press F1 to enter data, enter angles, and display calculated acceleration value with color code to distinguish the different range of the calculated acceleration value.

Kumra et al. disclose, "A graphical user interface assists the user in entering variables, selecting options, and post-processing" (Kumra, abstract). In addition to the graphical user

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interface (GUI) module 212, Kumra et al. specifically disclose the storage system 204 to hold data and code and printer 206 to produce paper copies of data in Fig. 3.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Eaton to incorporate the teachings of Kumra et al. to obtain the invention as specified in claim 1 because a graphical user interface may assist the user in entering variables, selecting options, and post-processing as suggested by Kumra et al.

9-2. Regarding claim 2, Eaton further discloses the step of selecting the vehicle driveline configuration from a plurality of driveline configurations prior to entering measurements of the vehicle driveline configuration into the graphical user interface program (three vehicle driveline configurations have been disclosed in the last two pages of Eaton Bulletin; Kumra et al. teach selecting options using graphical user interface).

9-3. Regarding claim 3, Kumra et al. further disclose the graphical user interface program includes a corrective mode for enabling a user to interactively change the entered measurements of the vehicle driveline configuration to determine one of the torsional acceleration and the inertia of the vehicle driveline configuration (entering variables, selecting options, and post-processing, Kumra, abstract).

9-4. Regarding claim 4, Kumra et al. further disclose the step of printing a worksheet to aide a user in entering of the measurements for the vehicle driveline configuration (two vehicle driveline worksheets have been disclosed in the last two pages of Eaton Bulletin; printer 206 produces paper copies, Kumra, column 12, line 30).

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9-5. Regarding claim 5, Kumra et al. further disclose the step of printing results from the determination of one of the torsional acceleration and the inertia for the vehicle driveline configuration (printer 206 produces paper copies, Kumra, column 12, line 30).

9-6. Regarding claim 6, Kumra et al. further disclose the step of saving results from the determination of one of the torsional acceleration and the inertia for the vehicle driveline configuration as an image file (storage system 204 is operative to hold data and code, Kumra, column 12, lines 27-28; saving as an image file is well known to one of ordinary skill in the relevant art).

9-7. Regarding claim 7, Eaton discloses a method of diagnosing and correcting driveline angles and lengths of components of a vehicle driveline, comprising the steps of:

entering measurements of the vehicle driveline into a program (Enter angles, Enter phasing angle of yokes, and Enter Prop Shaft lengths, steps 4, 6, and 7 of "How To Use D.A.A. Software", fifth page);

determining one of a torsional acceleration and an inertia of the vehicle driveline based on the entered measurements of the driveline angles and lengths of the components (The acceleration values will be calculated automatically, step 8 of "How To Use D.A.A. Software", fifth page); and

enabling a user to interactively change the entered measurements of the vehicle driveline to determine one of the torsional acceleration and the inertia of the vehicle driveline (Enter angles, Enter phasing angle of yokes, and Enter Prop Shaft lengths, steps 4, 6, and 7 of "How To Use D.A.A. Software", fifth page; The acceleration values will be calculated automatically, step 8 of "How To Use D.A.A. Software", fifth page).

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Eaton fails to disclose expressly the DAA program is a graphical user interface program. However, Eaton does disclose a minimum of a 286 based computer is required and various steps to interactively interface and operate the program, for example, start program by typing DAA, press F1 to enter data, enter angles, and display calculated acceleration value with color code to distinguish the different range of the calculated acceleration value.

Kumra et al. disclose, "A graphical user interface assists the user in entering variables, selecting options, and post-processing" (Kumra, abstract). In addition to the graphical user interface (GUI) module 212, Kumra et al. specifically disclose the storage system 204 to hold data and code and printer 206 to produce paper copies of data in Fig. 3.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Eaton to incorporate the teachings of Kumra et al. to obtain the invention as specified in claim 7 because a graphical user interface may assist the user in entering variables, selecting options, and post-processing as suggested by Kumra et al.

9-8. Regarding claim 8, Eaton further discloses the step of selecting the vehicle driveline from a plurality of drivelines (three vehicle driveline configurations have been disclosed in the last two pages of Eaton Bulletin; Kumra et al. teach selecting options using graphical user interface).

9-9. Regarding claim 9, Kumra et al. further disclose the step of printing a worksheet to aide a user in entering of the measurements for the vehicle driveline (two vehicle driveline worksheets have been disclosed in the last two pages of Eaton Bulletin; printer 206 produces paper copies, Kumra, column 12, line 30).

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9-10. Regarding claim 10, Kumra et al. further disclose the step of printing results from the determination of one of the torsional acceleration and the inertia for the vehicle driveline configuration (printer 206 produces paper copies, Kumra, column 12, line 30).

9-11. Regarding claim 11, Kumra et al. further disclose the step of saving results from the determination of one of the torsional acceleration and the inertia for the vehicle driveline configuration as an image file (storage system 204 is operative to hold data and code, Kumra, column 12, lines 27-28; saving as an image file is well-known to one of ordinary skill in the art).

9-12. Regarding claim 12, Eaton discloses a method of determining one of a torsional acceleration and a driveline inertia of a vehicle driveline configuration, comprising the steps of:

entering measurement data for the selected vehicle driveline configuration (Enter angles and Enter phasing angle of yokes, steps 4 and 6 of “How To Use D.A.A. Software”, fifth page);

determining one of the torsional acceleration and the driveline inertia of the selected vehicle driveline configuration (The acceleration values will be calculated automatically, step 8 of “How To Use D.A.A. Software”, fifth page); and

displaying one of the torsional acceleration and the driveline inertia of the selected vehicle driveline configuration (display calculated acceleration value using color code, e.g., Green, Yellow, or Red, for different range of the calculated acceleration value; step 8 of “How To Use D.A.A. Software”, fifth page).

Eaton fails to disclose expressly the step “selecting a vehicle driveline configuration from a plurality of driveline configurations”. However, Eaton does disclose different driveline configuration worksheets, for example, three vehicle driveline configurations in the last two pages of Eaton Bulletin.

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Kumra et al. disclose, “A graphical user interface assists the user in entering variables, selecting options, and post-processing” (Kumra, abstract). In addition to the graphical user interface (GUI) module 212, Kumra et al. specifically disclose the storage system 204 to hold data and code and printer 206 to produce paper copies of data in Fig. 3.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Eaton to incorporate the teachings of Kumra et al. to obtain the invention as specified in claim 12 because a graphical user interface may assist the user in entering variables, selecting options, and post-processing as suggested by Kumra et al. and selecting a matching driveline configuration is well known to one of ordinary skill in the relevant art).

9-13. Regarding claim 13, Kumra et al. further disclose the step of enabling a user to interactively change the entered measurements of the vehicle driveline configuration to determine a different one of the torsional acceleration and the inertia of the vehicle driveline configuration (entering variables, selecting options, and post-processing, Kumra, abstract).

9-14. Regarding claim 14, Kumra et al. further disclose the step of printing a worksheet to aide a user in entering of the measurements for the selected vehicle driveline configuration (two vehicle driveline worksheets have been disclosed in the last two pages of Eaton Bulletin; printer 206 produces paper copies, Kumra, column 12, line 30).

9-15. Regarding claim 15, Kumra et al. further disclose the step of printing results from the determination of one of the torsional acceleration and the inertia for the vehicle driveline configuration (printer 206 produces paper copies, Kumra, column 12, line 30).

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9-16. Regarding claim 16, Kumra et al. further disclose the step of saving results from the determination of one of the torsional acceleration and the inertia for the vehicle driveline configuration as an image file (storage system 204 is operative to hold data and code, Kumra, column 12, lines 27-28; saving as an image file is well known to one of ordinary skill in the relevant art).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

Reference to Kurzeja et al., U.S. Patent 6,345,826 B1 issued February 12, 2002, and filed June 23, 2000, is cited as disclosing a method for automatically controlling angles in a driveline of a vehicle.

11. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Herng-der Day whose telephone number is (703) 305-5269. The Examiner can normally be reached on 9:00 - 17:30.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Jean Homere can be reached on (703) 308-6647. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Herng-der Day
September 23, 2004

H.D.

JEAN F. HOMERE
PRIMARY EXAMINER